```
  * * * * * * * * * * * * * STN  Columbus  * * * * * * * * * * * * * * *

FILE 'HOME' ENTERED AT 09:08:29 ON 23 AUG 2005

=> fil .bec
COST IN U.S. DOLLARS                                    SINCE FILE      TOTAL
                                                           ENTRY    SESSION
FULL ESTIMATED COST                                         0.21       0.21

FILES 'MEDLINE, SCISEARCH, LIFESCI, BIOTECHDS, BIOSIS, EMBASE, HCAPLUS, NTIS,
       ESBIOBASE, BIOTECHNO, WPIDS' ENTERED AT 09:08:47 ON 23 AUG 2005
ALL COPYRIGHTS AND RESTRICTIONS APPLY.  SEE HELP USAGETERMS FOR DETAILS.

11 FILES IN THE FILE LIST

=> s d(w)(amino acid or aspartate)(w)oxidase# or dao or ddo or daao
FILE 'MEDLINE'
        574106 D
        594975 AMINO
       1348178 ACID
        445739 AMINO ACID
                 (AMINO(W)ACID)
         58122 ASPARTATE
         69284 OXIDASE#
          1179 D(W)(AMINO ACID OR ASPARTATE)(W)OXIDASE#
           508 DAO
            27 DDO
            63 DAAO
L1         1626 D(W)(AMINO ACID OR ASPARTATE)(W)OXIDASE# OR DAO OR DDO OR DAAO

FILE 'SCISEARCH'
        691678 D
        372599 AMINO
       1072882 ACID
        197876 AMINO ACID
                 (AMINO(W)ACID)
         39801 ASPARTATE
         68192 OXIDASE#
           728 D(W)(AMINO ACID OR ASPARTATE)(W)OXIDASE#
           638 DAO
           272 DDO
            72 DAAO
L2         1583 D(W)(AMINO ACID OR ASPARTATE)(W)OXIDASE# OR DAO OR DDO OR DAAO

FILE 'LIFESCI'
        167567 D
        162757 "AMINO"
        289053 "ACID"
        112488 AMINO ACID
                 ("AMINO"(W)"ACID")
         14961 ASPARTATE
         17538 OXIDASE#
           265 D(W)(AMINO ACID OR ASPARTATE)(W)OXIDASE#
           135 DAO
             6 DDO
            38 DAAO
L3          370 D(W)(AMINO ACID OR ASPARTATE)(W)OXIDASE# OR DAO OR DDO OR DAAO

FILE 'BIOTECHDS'
         43681 D
         62386 AMINO
        128658 ACID
         44425 AMINO ACID
                 (AMINO(W)ACID)
```

```
          1171 ASPARTATE
          6681 OXIDASE#
           237 D(W)(AMINO ACID OR ASPARTATE)(W)OXIDASE#
            38 DAO
             6 DDO
            59 DAAO
L4          247 D(W)(AMINO ACID OR ASPARTATE)(W)OXIDASE# OR DAO OR DDO OR DAAO

FILE 'BIOSIS'
        665994 D
        507849 AMINO
       1206528 ACID
        295021 AMINO ACID
                 (AMINO(W)ACID)
         67956 ASPARTATE
         86544 OXIDASE#
          1193 D(W)(AMINO ACID OR ASPARTATE)(W)OXIDASE#
           603 DAO
            39 DDO
            88 DAAO
L5         1744 D(W)(AMINO ACID OR ASPARTATE)(W)OXIDASE# OR DAO OR DDO OR DAAO

FILE 'EMBASE'
        492069 D
        406917 "AMINO"
       1321236 "ACID"
        275734 AMINO ACID
                 ("AMINO"(W)"ACID")
         46460 ASPARTATE
         61543 OXIDASE#
           654 D(W)(AMINO ACID OR ASPARTATE)(W)OXIDASE#
           443 DAO
            16 DDO
            67 DAAO
L6         1046 D(W)(AMINO ACID OR ASPARTATE)(W)OXIDASE# OR DAO OR DDO OR DAAO

FILE 'HCAPLUS'
       2233694 D
       1035955 AMINO
       4020904 ACID
        512743 AMINO ACID
                 (AMINO(W)ACID)
         56947 ASPARTATE
        115998 OXIDASE#
          2455 D(W)(AMINO ACID OR ASPARTATE)(W)OXIDASE#
           840 DAO
           290 DDO
           108 DAAO
L7         3450 D(W)(AMINO ACID OR ASPARTATE)(W)OXIDASE# OR DAO OR DDO OR DAAO

FILE 'NTIS'
          85225 D
           6933 AMINO
          43720 ACID
           2447 AMINO ACID
                  (AMINO(W)ACID)
            269 ASPARTATE
            738 OXIDASE#
              3 D(W)(AMINO ACID OR ASPARTATE)(W)OXIDASE#
             70 DAO
             10 DDO
              2 DAAO
L8            85 D(W)(AMINO ACID OR ASPARTATE)(W)OXIDASE# OR DAO OR DDO OR DAAO
```

```
FILE 'ESBIOBASE'
        191369 D
        169874 AMINO
        319569 ACID
         94895 AMINO ACID
                 (AMINO(W)ACID)
         19417 ASPARTATE
         20578 OXIDASE#
           271 D(W)(AMINO ACID OR ASPARTATE)(W)OXIDASE#
           158 DAO
             7 DDO
            53 DAAO
L9          400 D(W)(AMINO ACID OR ASPARTATE)(W)OXIDASE# OR DAO OR DDO OR DAAO

FILE 'BIOTECHNO'
        124470 D
        204625 AMINO
        349810 ACID
        154660 AMINO ACID
                 (AMINO(W)ACID)
          8066 ASPARTATE
         16788 OXIDASE#
           283 D(W)(AMINO ACID OR ASPARTATE)(W)OXIDASE#
           103 DAO
             5 DDO
            40 DAAO
L10         345 D(W)(AMINO ACID OR ASPARTATE)(W)OXIDASE# OR DAO OR DDO OR DAAO

FILE 'WPIDS'
        558813 D
        235316 AMINO
        908858 ACID
         64982 AMINO ACID
                 (AMINO(W)ACID)
          2486 ASPARTATE
          6924 OXIDASE#
           112 D(W)(AMINO ACID OR ASPARTATE)(W)OXIDASE#
            77 DAO
            20 DDO
            10 DAAO
L11         187 D(W)(AMINO ACID OR ASPARTATE)(W)OXIDASE# OR DAO OR DDO OR DAAO

TOTAL FOR ALL FILES
L12       11083 D(W)(AMINO ACID OR ASPARTATE)(W) OXIDASE# OR DAO OR DDO OR DAAO


=> s l12 and (schizophrenia or depression or bipolar)
FILE 'MEDLINE'
         67441 SCHIZOPHRENIA
        160930 DEPRESSION
         32074 BIPOLAR
L13         18 L1 AND (SCHIZOPHRENIA OR DEPRESSION OR BIPOLAR)

FILE 'SCISEARCH'
         47982 SCHIZOPHRENIA
        104172 DEPRESSION
         35806 BIPOLAR
L14         33 L2 AND (SCHIZOPHRENIA OR DEPRESSION OR BIPOLAR)

FILE 'LIFESCI'
          2789 SCHIZOPHRENIA
         13116 DEPRESSION
          3426 BIPOLAR
L15          2 L3 AND (SCHIZOPHRENIA OR DEPRESSION OR BIPOLAR)
```

```
FILE 'BIOTECHDS'
           995 SCHIZOPHRENIA
           970 DEPRESSION
           350 BIPOLAR
L16          6 L4 AND (SCHIZOPHRENIA OR DEPRESSION OR BIPOLAR)

FILE 'BIOSIS'
         40982 SCHIZOPHRENIA
        114950 DEPRESSION
         20401 BIPOLAR
L17         31 L5 AND (SCHIZOPHRENIA OR DEPRESSION OR BIPOLAR)

FILE 'EMBASE'
         56205 SCHIZOPHRENIA
        169783 DEPRESSION
         22089 BIPOLAR
L18         16 L6 AND (SCHIZOPHRENIA OR DEPRESSION OR BIPOLAR)

FILE 'HCAPLUS'
         13642 SCHIZOPHRENIA
         73873 DEPRESSION
         33407 BIPOLAR
L19         43 L7 AND (SCHIZOPHRENIA OR DEPRESSION OR BIPOLAR)

FILE 'NTIS'
           181 SCHIZOPHRENIA
          3014 DEPRESSION
          2339 BIPOLAR
L20          1 L8 AND (SCHIZOPHRENIA OR DEPRESSION OR BIPOLAR)

FILE 'ESBIOBASE'
         10018 SCHIZOPHRENIA
         23761 DEPRESSION
          5659 BIPOLAR
L21          9 L9 AND (SCHIZOPHRENIA OR DEPRESSION OR BIPOLAR)

FILE 'BIOTECHNO'
          2079 SCHIZOPHRENIA
          5916 DEPRESSION
          1671 BIPOLAR
L22          6 L10 AND (SCHIZOPHRENIA OR DEPRESSION OR BIPOLAR)

FILE 'WPIDS'
          6333 SCHIZOPHRENIA
         31449 DEPRESSION
         33283 BIPOLAR
L23          7 L11 AND (SCHIZOPHRENIA OR DEPRESSION OR BIPOLAR)

TOTAL FOR ALL FILES
L24        172 L12 AND (SCHIZOPHRENIA OR DEPRESSION OR BIPOLAR)

=> s l24 not 2002-2005/py
FILE 'MEDLINE'
       2078897 2002-2005/PY
L25          5 L13 NOT 2002-2005/PY

FILE 'SCISEARCH'
       3872304 2002-2005/PY
                 (20020000-20059999/PY)
L26          7 L14 NOT 2002-2005/PY

FILE 'LIFESCI'
        353601 2002-2005/PY
```

```
L27           0 L15 NOT 2002-2005/PY

FILE 'BIOTECHDS'
          89618 2002-2005/PY
L28           0 L16 NOT 2002-2005/PY

FILE 'BIOSIS'
        1752605 2002-2005/PY
L29           3 L17 NOT 2002-2005/PY

FILE 'EMBASE'
        1764862 2002-2005/PY
L30           3 L18 NOT 2002-2005/PY

FILE 'HCAPLUS'
        3950605 2002-2005/PY
L31          13 L19 NOT 2002-2005/PY

FILE 'NTIS'
          49335 2002-2005/PY
L32           1 L20 NOT 2002-2005/PY

FILE 'ESBIOBASE'
        1073295 2002-2005/PY
L33           0 L21 NOT 2002-2005/PY

FILE 'BIOTECHNO'
         244553 2002-2005/PY
L34           1 L22 NOT 2002-2005/PY

FILE 'WPIDS'
        3645178 2002-2005/PY
L35           0 L23 NOT 2002-2005/PY

TOTAL FOR ALL FILES
L36          33 L24 NOT 2002-2005/PY

=> s l12 and d(w)serine
FILE 'MEDLINE'
         574106 D
          84906 SERINE
            730 D(W)SERINE
L37          41 L1 AND D(W)SERINE

FILE 'SCISEARCH'
         691678 D
          49577 SERINE
            958 D(W)SERINE
L38          78 L2 AND D(W)SERINE

FILE 'LIFESCI'
         167567 D
          20692 SERINE
            293 D(W)SERINE
L39          17 L3 AND D(W)SERINE

FILE 'BIOTECHDS'
          43681 D
           4454 SERINE
             86 D(W)SERINE
L40          10 L4 AND D(W)SERINE

FILE 'BIOSIS'
         665994 D
```

```
         65169 SERINE
          1244 D(W)SERINE
L41         61 L5 AND D(W)SERINE

FILE 'EMBASE'
        492069 D
         54251 SERINE
           686 D(W)SERINE
L42         41 L6 AND D(W)SERINE

FILE 'HCAPLUS'
       2233694 D
        102365 SERINE
          2393 D(W)SERINE
L43         95 L7 AND D(W)SERINE

FILE 'NTIS'
         85225 D
           517 SERINE
             4 D(W)SERINE
L44          0 L8 AND D(W)SERINE

FILE 'ESBIOBASE'
        191369 D
         25569 SERINE
           321 D(W)SERINE
L45         41 L9 AND D(W)SERINE

FILE 'BIOTECHNO'
        124470 D
         28989 SERINE
           165 D(W)SERINE
L46         13 L10 AND D(W)SERINE

FILE 'WPIDS'
        558813 D
          7771 SERINE
           179 D(W)SERINE
L47          8 L11 AND D(W)SERINE

TOTAL FOR ALL FILES
L48        405 L12 AND D(W) SERINE

=> s l48 not 2002-2005/py
FILE 'MEDLINE'
       2078897 2002-2005/PY
L49         23 L37 NOT 2002-2005/PY

FILE 'SCISEARCH'
       3872304 2002-2005/PY
                 (20020000-20059999/PY)
L50         45 L38 NOT 2002-2005/PY

FILE 'LIFESCI'
        353601 2002-2005/PY
L51          9 L39 NOT 2002-2005/PY

FILE 'BIOTECHDS'
         89618 2002-2005/PY
L52          3 L40 NOT 2002-2005/PY

FILE 'BIOSIS'
       1752605 2002-2005/PY
L53         34 L41 NOT 2002-2005/PY
```

```
FILE 'EMBASE'
       1764862 2002-2005/PY
L54          24 L42 NOT 2002-2005/PY

FILE 'HCAPLUS'
       3950605 2002-2005/PY
L55          62 L43 NOT 2002-2005/PY

FILE 'NTIS'
         49335 2002-2005/PY
L56           0 L44 NOT 2002-2005/PY

FILE 'ESBIOBASE'
       1073295 2002-2005/PY
L57          18 L45 NOT 2002-2005/PY

FILE 'BIOTECHNO'
        244553 2002-2005/PY
L58           9 L46 NOT 2002-2005/PY

FILE 'WPIDS'
       3645178 2002-2005/PY
L59           1 L47 NOT 2002-2005/PY

TOTAL FOR ALL FILES
L60         228 L48 NOT 2002-2005/PY

=> s l12(10a)inhibit?
FILE 'MEDLINE'
       1195975 INHIBIT?
L61         124 L1 (10A)INHIBIT?

FILE 'SCISEARCH'
        988731 INHIBIT?
L62          64 L2 (10A)INHIBIT?

FILE 'LIFESCI'
        325187 INHIBIT?
L63          31 L3 (10A)INHIBIT?

FILE 'BIOTECHDS'
         54523 INHIBIT?
L64          18 L4 (10A)INHIBIT?

FILE 'BIOSIS'
       1272322 INHIBIT?
L65         128 L5 (10A)INHIBIT?

FILE 'EMBASE'
       1082256 INHIBIT?
L66          88 L6 (10A)INHIBIT?

FILE 'HCAPLUS'
       1765093 INHIBIT?
L67         360 L7 (10A)INHIBIT?

FILE 'NTIS'
         20783 INHIBIT?
L68           2 L8 (10A)INHIBIT?

FILE 'ESBIOBASE'
        429802 INHIBIT?
L69          33 L9 (10A)INHIBIT?
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FILE 'BIOTECHNO'
        301415 INHIBIT?
L70          24 L10(10A)INHIBIT?

FILE 'WPIDS'
        237369 INHIBIT?
L71          13 L11(10A)INHIBIT?

TOTAL FOR ALL FILES
L72         885 L12(10A) INHIBIT?

=> s l72 and (ndma or glutamat?)
FILE 'MEDLINE'
           610 NDMA
         73360 GLUTAMAT?
L73            6 L61 AND (NDMA OR GLUTAMAT?)

FILE 'SCISEARCH'
           433 NDMA
         64806 GLUTAMAT?
L74            7 L62 AND (NDMA OR GLUTAMAT?)

FILE 'LIFESCI'
           265 NDMA
         25454 GLUTAMAT?
L75            3 L63 AND (NDMA OR GLUTAMAT?)

FILE 'BIOTECHDS'
             5 NDMA
          2170 GLUTAMAT?
L76            1 L64 AND (NDMA OR GLUTAMAT?)

FILE 'BIOSIS'
           758 NDMA
         85255 GLUTAMAT?
L77           10 L65 AND (NDMA OR GLUTAMAT?)

FILE 'EMBASE'
           491 NDMA
         58379 GLUTAMAT?
L78           12 L66 AND (NDMA OR GLUTAMAT?)

FILE 'HCAPLUS'
           936 NDMA
        102252 GLUTAMAT?
L79           18 L67 AND (NDMA OR GLUTAMAT?)

FILE 'NTIS'
            55 NDMA
           534 GLUTAMAT?
L80            0 L68 AND (NDMA OR GLUTAMAT?)

FILE 'ESBIOBASE'
           179 NDMA
         28715 GLUTAMAT?
L81            4 L69 AND (NDMA OR GLUTAMAT?)

FILE 'BIOTECHNO'
           127 NDMA
         12523 GLUTAMAT?
L82            5 L70 AND (NDMA OR GLUTAMAT?)

FILE 'WPIDS'
```

```
            13 NDMA
          4976 GLUTAMAT?
L83          1 L71 AND (NDMA OR GLUTAMAT?)

TOTAL FOR ALL FILES
L84         67 L72 AND (NDMA OR GLUTAMAT?)

=> s l84 not 2002-2005/py
FILE 'MEDLINE'
       2078897 2002-2005/PY
L85          4 L73 NOT 2002-2005/PY

FILE 'SCISEARCH'
       3872304 2002-2005/PY
                 (20020000-20059999/PY)
L86          4 L74 NOT 2002-2005/PY

FILE 'LIFESCI'
        353601 2002-2005/PY
L87          2 L75 NOT 2002-2005/PY

FILE 'BIOTECHDS'
         89618 2002-2005/PY
L88          1 L76 NOT 2002-2005/PY

FILE 'BIOSIS'
       1752605 2002-2005/PY
L89          7 L77 NOT 2002-2005/PY

FILE 'EMBASE'
       1764862 2002-2005/PY
L90         10 L78 NOT 2002-2005/PY

FILE 'HCAPLUS'
       3950605 2002-2005/PY
L91         14 L79 NOT 2002-2005/PY

FILE 'NTIS'
         49335 2002-2005/PY
L92          0 L80 NOT 2002-2005/PY

FILE 'ESBIOBASE'
       1073295 2002-2005/PY
L93          2 L81 NOT 2002-2005/PY

FILE 'BIOTECHNO'
        244553 2002-2005/PY
L94          5 L82 NOT 2002-2005/PY

FILE 'WPIDS'
       3645178 2002-2005/PY
L95          0 L83 NOT 2002-2005/PY

TOTAL FOR ALL FILES
L96         49 L84 NOT 2002-2005/PY

=> fil .becpat
COST IN U.S. DOLLARS                        SINCE FILE      TOTAL
                                               ENTRY    SESSION
FULL ESTIMATED COST                            35.10      35.31

FILES 'BIOTECHDS, HCAPLUS, WPIDS' ENTERED AT 09:17:35 ON 23 AUG 2005
ALL COPYRIGHTS AND RESTRICTIONS APPLY.  SEE HELP USAGETERMS FOR DETAILS.
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3 FILES IN THE FILE LIST

=> s (124 or 148 or 184) and wo/pc and pry<=2001 range=2002,
FILE 'BIOTECHDS'
         27380 WO/PC
         30691 PRY<=2001
                 (PRY<=2001)
L97           2 (L16 OR L40 OR L76) AND WO/PC AND PRY<=2001

FILE 'HCAPLUS'
        211721 WO/PC
        602137 PRY<=2001
L98           5 (L19 OR L43 OR L79) AND WO/PC AND PRY<=2001

FILE 'WPIDS'
        418053 WO/PC
       1543545 PRY<=2001
                 (PRY<=2001)
L99           3 (L23 OR L47 OR L83) AND WO/PC AND PRY<=2001

TOTAL FOR ALL FILES
L100         10 (L24 OR L48 OR L84) AND WO/PC AND PRY<=2001

=> dup rem l100
PROCESSING COMPLETED FOR L100
L101          5 DUP REM L100 (5 DUPLICATES REMOVED)

=> d tot

L101 ANSWER 1 OF 5  HCAPLUS  COPYRIGHT 2005 ACS on STN
TI   RNA interference-mediated inhibition of G72 and D-amino
     acid oxidase gene expression using short interfering
     nucleic acids
SO   U.S. Pat. Appl. Publ., 127 pp., Cont.-in-part of Appl. No.
     PCT/US04/016390.
     CODEN: USXXCO
IN   McSwiggen, James; Beigelman, Leonid; Haeberli, Peter
AN   2005:547035  HCAPLUS
DN   143:53567
     PATENT NO.          KIND   DATE        APPLICATION NO.        DATE
     --------------      ----   --------    --------------------   --------
PI   US 2005136436        A1    20050623    US 2004-923640         20040819 <--
     AU 9851819           A1    19980611    AU 1998-51819          19980112 <--
     AU 729657            B2    20010208
     AU 9939188           A1    19990916    AU 1999-39188          19990713 <--
     AU 769175            B2    20040115    AU 2000-56616          20000911 <--
     US 2003104985        A1    20030605    US 2002-151116         20020517 <--
     WO 2002094185        A2    20021128    WO 2002-US15876        20020520 <--
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             GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR,
             LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH,
             PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ,
             UA, UG, US, UZ, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU,
             TJ, TM
         RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH,
             CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR,
             BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG
     US 2003130186        A1    20030710    US 2002-201394         20020722 <--
     WO 2003070743        A1    20030828    WO 2003-US4397         20030213 <--
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             GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR,
             LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH,
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PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ,
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RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY,
KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES,
FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, SE, SI, SK, TR, BF,
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WO 2003070918 A2 20030828 WO 2003-US5346 20030220 <--
WO 2003070918 A3 20040708
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GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR,
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PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ,
UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW
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FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, SE, SI, SK, TR, BF,
BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

WO 2003074654 A2 20030912 WO 2003-US5028 20030220 <--
WO 2003074654 A3 20040205
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PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ,
UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY,
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FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, SE, SI, SK, TR, BF,
BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

US 2004110296 A1 20040610 US 2003-427160 20030430 <--
US 2004192626 A1 20040930 US 2003-444853 20030523
US 2005020525 A1 20050127 US 2004-757803 20040114
US 2004249178 A1 20041209 US 2004-780447 20040213 <--
US 2005032733 A1 20050210 US 2004-826966 20040416 <--
WO 2005041859 A2 20050512 WO 2004-US13456 20040430 <--
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LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI,
NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY,
TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW
RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM,
AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK,
EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE,
SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE,
SN, TD, TG

WO 2005019453 A2 20050303 WO 2004-US16390 20040524 <--
WO 2005019453 A3 20050623
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH,
CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD,
GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC,
LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI,
NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY,
TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW
RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM,
AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK,
EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE,
SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE,
SN, TD, TG

L101 ANSWER 2 OF 5 BIOTECHDS COPYRIGHT 2005 THE THOMSON CORP. on STN
TI Determining a genotype of an individual for preparing a composition for treating **schizophrenia** by determining the identity of a

nucleotide at a biallelic marker of the **D-amino acid oxidase** gene of the polynucleotide in a sample; **D-amino-acid-oxidase** genotyping for disease diagnosis

AU COHEN D; CHUMAKOV I
AN 2003-19696 BIOTECHDS
PI **WO** 2003050303 19 Jun 2003

L101 ANSWER 3 OF 5 HCAPLUS COPYRIGHT 2005 ACS on STN DUPLICATE 2
TI **D-Amino acid oxidase** inhibitors for learning and memory
SO PCT Int. Appl., 36 pp.
CODEN: PIXXD2
IN Heefner, Donald L.; Currie, Mark G.; Rossi, Richard Filip, Jr.; Zepp, Charles M.
AN 2003:376633 HCAPLUS
DN 138:362716

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI WO 2003039540	A2	20030515	WO 2002-US36051	20021112 <--
WO 2003039540	A3	20031204		

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW

RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

US 2003162825	A1	20030828	US 2002-292368	20021112 <--

L101 ANSWER 4 OF 5 HCAPLUS COPYRIGHT 2005 ACS on STN
TI RNA interference-mediated inhibition of G72 and **D-amino acid oxidase** gene expression using short interfering nucleic acids
SO PCT Int. Appl., 139 pp.
CODEN: PIXXD2
IN McSwiggen, James; Beigelman, Leonid; Haeberli, Peter
AN 2003:678822 HCAPLUS
DN 139:191411

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI WO 2003070743	A1	20030828	WO 2003-US4397	20030213 <--

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW

RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

AU 9851819	A1	19980611	AU 1998-51819	19980112 <--
AU 729657	B2	20010208		
AU 9939188	A1	19990916	AU 1999-39188	19990713 <--
AU 769175	B2	20040115	AU 2000-56616	20000911 <--
EP 1495041	A1	20050112	EP 2003-742736	20030213

R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK

US 2005136436	A1	20050623	US 2004-923640	20040819 <--

L101 ANSWER 5 OF 5 BIOTECHDS COPYRIGHT 2005 THE THOMSON CORP. on STN
TI Novel **D-amino acid oxidase**
polypeptide useful for identifying candidate molecule for the treatment of a central nervous system disorder and for the treatment of **schizophrenia**, **depression** or **bipolar** disorder;
recombinant protein production and sense, antisense and triple helix-forming sequence for use in disease gene therapy
AU COHEN D; CHUMAKOV I
AN 2003-07415 BIOTECHDS
PI **WO** 2002066672 29 Aug 2002

=> log y

COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	14.13	49.44

STN INTERNATIONAL LOGOFF AT 09:19:58 ON 23 AUG 2005

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FILE 'HOME' ENTERED AT 08:13:17 ON 23 AUG 2005

=> fil .bec
COST IN U.S. DOLLARS                                    SINCE FILE      TOTAL
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FULL ESTIMATED COST                                         0.21       0.21

FILES 'MEDLINE, SCISEARCH, LIFESCI, BIOTECHDS, BIOSIS, EMBASE, HCAPLUS, NTIS,
       ESBIOBASE, BIOTECHNO, WPIDS' ENTERED AT 08:13:31 ON 23 AUG 2005
ALL COPYRIGHTS AND RESTRICTIONS APPLY.  SEE HELP USAGETERMS FOR DETAILS.

11 FILES IN THE FILE LIST

=> s cystathionine ketimine or 87458-28-4
FILE 'MEDLINE'
          1745 CYSTATHIONINE
           130 KETIMINE
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L1           19 CYSTATHIONINE KETIMINE OR 87458-28-4

FILE 'SCISEARCH'
          1376 CYSTATHIONINE
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                 (CYSTATHIONINE(W)KETIMINE)
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L2           16 CYSTATHIONINE KETIMINE OR 87458-28-4

FILE 'LIFESCI'
           312 "CYSTATHIONINE"
            42 "KETIMINE"
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             0 87458-28-4
L3            4 CYSTATHIONINE KETIMINE OR 87458-28-4

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             0 87458-28-4
L4           0 CYSTATHIONINE KETIMINE OR 87458-28-4

FILE 'BIOSIS'
          1839 CYSTATHIONINE
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            21 CYSTATHIONINE KETIMINE
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            11 87458-28-4
L5           21 CYSTATHIONINE KETIMINE OR 87458-28-4

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L6           16 CYSTATHIONINE KETIMINE OR 87458-28-4
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FILE 'HCAPLUS'
          2395 CYSTATHIONINE
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                 (CYSTATHIONINE(W)KETIMINE)
            23 87458-28-4
L7          28 CYSTATHIONINE KETIMINE OR 87458-28-4

FILE 'NTIS'
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                 (CYSTATHIONINE(W)KETIMINE)
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L8           0 CYSTATHIONINE KETIMINE OR 87458-28-4

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                 (CYSTATHIONINE(W)KETIMINE)
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L9           8 CYSTATHIONINE KETIMINE OR 87458-28-4

FILE 'BIOTECHNO'
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L10          7 CYSTATHIONINE KETIMINE OR 87458-28-4

FILE 'WPIDS'
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PROCESSING COMPLETED FOR L12
L13         32 DUP REM L12 (87 DUPLICATES REMOVED)

=> d tot

L13  ANSWER 1 OF 32     MEDLINE on STN                  DUPLICATE 1
TI   Effect of sulfur amino acids on stimulus-induced superoxide generation and
     translocation of p47phox and p67phox to cell membrane in human neutrophils
     and the scavenging of free radical.
SO   Clinica chimica acta; international journal of clinical chemistry, (2005
     Mar) 353 (1-2) 109-16.
     Journal code: 1302422. ISSN: 0009-8981.
```

AU Kitaoka Noriko; Liu Gang; Masuoka Noriyoshi; Yamashita Koichi; Manabe Masanobu; Kodama Hiroyuki
AN 2005069032 MEDLINE

L13 ANSWER 2 OF 32 HCAPLUS COPYRIGHT 2005 ACS on STN
TI Antagonists of D-amino acid oxidase and D-aspartate oxidase for treatment of central nervous sytem disorders
SO U.S. Pat. Appl. Publ., 138 pp., Cont.-in-part of U.S. Ser. No. 51,681.
CODEN: USXXCO
IN Cohen, Daniel; Chumakov, Llya
AN 2003:696521 HCAPLUS
DN 139:224389

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI US 2003166554	A1	20030904	US 2002-211160	20020801
US 2003185754	A1	20031002	US 2002-51681	20020116

L13 ANSWER 3 OF 32 HCAPLUS COPYRIGHT 2005 ACS on STN
TI Treatment of CNS disorders using D-amino acid oxidase and D-aspartate oxidase antagonists
SO PCT Int. Appl., 194 pp.
CODEN: PIXXD2
IN Cohen, Daniel; Chumakov, Ilya
AN 2002:658287 HCAPLUS
DN 137:195529

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI WO 2002066672	A2	20020829	WO 2002-IB1262	20020115
WO 2002066672	A3	20040226		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
CA 2433866	AA	20020829	CA 2002-2433866	20020115
EP 1412515	A2	20040428	EP 2002-717019	20020115
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				
JP 2004537275	T2	20041216	JP 2002-566376	20020115

L13 ANSWER 4 OF 32 HCAPLUS COPYRIGHT 2005 ACS on STN
TI Cystathionine metabolism in patients with cystathioninuria and effect of priming of cystathionine metabolites on superoxide generation in human neutrophils
SO Recent Research Developments in Biophysics & Biochemistry (2001), 1, 189-199
CODEN: RRDBDN
AU Kodama, Hiroyuki; Zhang, Jianying; Sugahara, Kazunori; Sagara, Yasuhiro; Masuoka, Yoshinori
AN 2002:623127 HCAPLUS
DN 138:13150

L13 ANSWER 5 OF 32 SCISEARCH COPYRIGHT (c) 2005 The Thomson Corporation on STN
TI Effect of sarsasapogenin and its derivatives on the stimulus coupled responses of human neutrophils
SO CLINICA CHIMICA ACTA, (DEC 2001) Vol. 314, No. 1-2, pp. 107-112.
ISSN: 0009-8981.
AU Ma D S; Zhang J Y; Sugahara K; Sagara Y; Kodama H (Reprint)

AN 2002:16303 SCISEARCH

L13 ANSWER 6 OF 32 MEDLINE on STN DUPLICATE 2
TI Accumulation of cystathionine, **cystathionine ketimine**, and perhydro-1,4-thiazepine-3,5-dicarboxylic acid in whole brain and various regions of the brain of D, L-propargylglycine-treated rats.
SO Metabolism: clinical and experimental, (2000 Aug) 49 (8) 1025-9.
Journal code: 0375267. ISSN: 0026-0495.
AU Yu S; Sugahara K; Nakayama K; Awata S; Kodama H
AN 2000414616 MEDLINE

L13 ANSWER 7 OF 32 MEDLINE on STN DUPLICATE 3
TI Novel priming compounds of cystathionine metabolites on superoxide generation in human neutrophils.
SO Biochemical and biophysical research communications, (2000 Mar 16) 269 (2) 297-301.
Journal code: 0372516. ISSN: 0006-291X.
AU Kodama H; Zhang J; Sugahara K
AN 2000175195 MEDLINE

L13 ANSWER 8 OF 32 MEDLINE on STN DUPLICATE 4
TI D-**cystathionine ketimine** and L-**cystathionine ketimine** enhance superoxide generation by human neutrophils in a different manner.
SO Archives of biochemistry and biophysics, (1999 Mar 1) 363 (1) 55-9.
Journal code: 0372430. ISSN: 0003-9861.
AU Zhang J; Zhang M; Sugahara K; Sagara Y; Spirito A; Dupre; Kodama H
AN 1999160374 MEDLINE

L13 ANSWER 9 OF 32 MEDLINE on STN DUPLICATE 5
TI Metabolism of cystathionine, N-monoacetylcystathionine, perhydro-1,4-thiazepine-3,5-dicarboxylic acid, and **cystathionine ketimine** in the liver and kidney of D,L-propargylglycine-treated rats.
SO Metabolism: clinical and experimental, (1998 Oct) 47 (10) 1233-8.
Journal code: 0375267. ISSN: 0026-0495.
AU Zhang J; Zhang M; Ma D; Sugahara K; Kodama H
AN 1998452887 MEDLINE

L13 ANSWER 10 OF 32 MEDLINE on STN DUPLICATE 6
TI Detection of **cystathionine ketimine** and lanthionine ketimine in human brain.
SO Neurochemical research, (1997 Jul) 22 (7) 821-4.
Journal code: 7613461. ISSN: 0364-3190.
AU Fontana M; Brunori A; Costa M; Antonucci A
AN 97376565 MEDLINE

L13 ANSWER 11 OF 32 SCISEARCH COPYRIGHT (c) 2005 The Thomson Corporation on STN
TI Lanthionine ketimine and S-(2-aminoethyl)-L-cysteine ketimine induce the tyrosyl phosphorylation of 45 kDa protein in parallel with its stimulation of superoxide generation in human neutrophils
SO PHYSIOLOGICAL CHEMISTRY AND PHYSICS AND MEDICAL NMR, (1997) Vol. 29, No. 2, pp. 199-211.
ISSN: 0748-6642.
AU Zhang J Y (Reprint); Sugahara K; Hashimoto K; Sagara Y; Fontana M; Dupre S; Kodama H
AN 1998:507673 SCISEARCH

L13 ANSWER 12 OF 32 MEDLINE on STN DUPLICATE 7
TI Effect of cystathionine and cystathionine metabolites on the phosphorylation of tyrosine residues in human neutrophils.
SO Biochemical and biophysical research communications, (1996 Jul 25) 224 (3) 849-54.

Journal code: 0372516. ISSN: 0006-291X.
AU Zhang J; Sagara Y; Fontana M; Dupre S; Cavallini D; Kodama H
AN 96311377 MEDLINE

L13 ANSWER 13 OF 32 MEDLINE on STN DUPLICATE 8
TI Effect of **cystathionine ketimine** on the stimulus coupled responses of neutrophils and their modulation by various protein kinase inhibitors.
SO Biochemical and biophysical research communications, (1996 Jan 5) 218 (1) 371-6.
Journal code: 0372516. ISSN: 0006-291X.
AU Zhang J; Sugahara K; Sagara Y; Fontana M; Dupre S; Kodama H
AN 96136330 MEDLINE

L13 ANSWER 14 OF 32 SCISEARCH COPYRIGHT (c) 2005 The Thomson Corporation on STN
TI Solubilization of [S-35]lanthionine ketimine binding sites from bovine brain
SO NEUROCHEMISTRY INTERNATIONAL, (FEB 1996) Vol. 28, No. 2, pp. 169-173. ISSN: 0197-0186.
AU Fontana M (Reprint); Costa M; Dupre S
AN 1996:31036 SCISEARCH

L13 ANSWER 15 OF 32 MEDLINE on STN DUPLICATE 9
TI Identification of perhydro-1,4-thiazepine-3,5-dicarboxylic acid, cystathionine mono-oxo acids, cystathionine ketimines, cystathionine sulfoxide and N-acetylcystathionine sulfoxide in the urine sample of D,L-propargylglycine treated rats.
SO Physiological chemistry and physics and medical NMR, (1995) 27 (3) 203-16.
Journal code: 8502230. ISSN: 0748-6642.
AU Machida Y; Zhang J; Hashimoto K; Wakiguchi H; Kurashige T; Masuoka N; Ubuka T; Kodama H
AN 97022220 MEDLINE

L13 ANSWER 16 OF 32 HCAPLUS COPYRIGHT 2005 ACS on STN
TI Characterization of [35S]lanthionine ketimine specific binding to bovine brain membranes
SO Biochemical and Biophysical Research Communications (1993), 195(2), 673-8
CODEN: BBRCA9; ISSN: 0006-291X
AU Dupre, S.; Fontana, M.; Costa, M.; Pecci, L.; Ricci, G.; Cavallini, D.
AN 1993:664740 HCAPLUS
DN 119:264740

L13 ANSWER 17 OF 32 MEDLINE on STN DUPLICATE 10
TI Identification of new cystathionine mono-oxo acids, S-(3-oxo-3-carboxy-n-propyl) cysteine and S-(2-oxo-2-carboxyethyl) homocysteine, in the urine of a patient with cystathioninuria.
SO Archives of biochemistry and biophysics, (1993 Sep) 305 (2) 385-91.
Journal code: 0372430. ISSN: 0003-9861.
AU Okada T; Takechi T; Wakiguchi H; Kurashige T; Sugahara K; Kodama H
AN 93384291 MEDLINE

L13 ANSWER 18 OF 32 SCISEARCH COPYRIGHT (c) 2005 The Thomson Corporation on STN DUPLICATE 11
TI REVERSIBLE CYCLIZATION OF S-(2-OXO-2-CARBOXYETHYL)-L-HOMOCYSTEINE TO **CYSTATHIONINE KETIMINE**
SO AMINO ACIDS, (1993) Vol. 4, No. 1-2, pp. 133-140.
ISSN: 0939-4451.
AU SOLINAS S P (Reprint); PECCI L; MONTEFOSCHI G; FONTANA M; CAVALLINI D
AN 1993:317983 SCISEARCH

L13 ANSWER 19 OF 32 HCAPLUS COPYRIGHT 2005 ACS on STN
TI The reducing activity of S-aminoethylcysteine ketimine and similar sulfur-containing ketimines

SO Biochemical and Biophysical Research Communications (1992), 183(2), 481-6
CODEN: BBRCA9; ISSN: 0006-291X
AU Solinas, S. P.; Pecci, L.; Montefoschi, G.; Cavallini, D.
AN 1992:190589 HCAPLUS
DN 116:190589

L13 ANSWER 20 OF 32 MEDLINE on STN DUPLICATE 12
TI Sulfur-containing cyclic ketimines and imino acids. A novel family of endogenous products in the search for a role.
SO European journal of biochemistry / FEBS, (1991 Dec 5) 202 (2) 217-23.
Ref: 62
Journal code: 0107600. ISSN: 0014-2956.
AU Cavallini D; Ricci G; Dupre S; Pecci L; Costa M; Matarese R M; Pensa B; Antonucci A; Solinas S P; Fontana M
AN 92104137 MEDLINE

L13 ANSWER 21 OF 32 MEDLINE on STN DUPLICATE 13
TI Detection of **cystathionine ketimine** in bovine cerebellum.
SO Journal of neurochemistry, (1990 Nov) 55 (5) 1599-602.
Journal code: 2985190R. ISSN: 0022-3042.
AU Ricci G; Vesci L; Matarese R M; Antonucci A; Maggio A; Pecci L; Cavallini D
AN 91011395 MEDLINE

L13 ANSWER 22 OF 32 MEDLINE on STN DUPLICATE 14
TI 35S]Lanthionine ketimine binding to bovine brain membranes.
SO Biochemical and biophysical research communications, (1990 Aug 31) 171 (1) 480-6.
Journal code: 0372516. ISSN: 0006-291X.
AU Fontana M; Ricci G; Solinas S P; Antonucci A; Serao I; Dupre S; Cavallini D
AN 90365749 MEDLINE

L13 ANSWER 23 OF 32 MEDLINE on STN DUPLICATE 15
TI Influence of diet on **cystathionine ketimine** and lanthionine ketimine content in human urine.
SO Italian journal of biochemistry, (1990 Mar-Apr) 39 (2) 100-5.
Journal code: 0376564. ISSN: 0021-2938.
AU Antonucci A; Pecci L; Fontana M; Cavallini D
AN 90299613 MEDLINE

L13 ANSWER 24 OF 32 MEDLINE on STN DUPLICATE 16
TI Detection of cystathionine and lanthionine ketimines in human urine.
SO Biochemistry international, (1988 Nov) 17 (5) 877-83.
Journal code: 8100311. ISSN: 0158-5231.
AU Pecci L; Antonucci A; Nardini M; Cavallini D
AN 89322315 MEDLINE

L13 ANSWER 25 OF 32 HCAPLUS COPYRIGHT 2005 ACS on STN
TI Purification and characterization of a ketimine-reducing enzyme
SO European Journal of Biochemistry (1988), 173(3), 689-94
CODEN: EJBCAI; ISSN: 0014-2956
AU Nardini, Mirella; Ricci, Giorgio; Caccuri, Anna Maria; Solinas, Sandro Paolo; Vesci, Loredana; Cavallini, Doriano
AN 1988:434289 HCAPLUS
DN 109:34289

L13 ANSWER 26 OF 32 MEDLINE on STN DUPLICATE 17
TI Bovine brain ketimine reductase.
SO Biochimica et biophysica acta, (1988 Nov 23) 957 (2) 286-92.
Journal code: 0217513. ISSN: 0006-3002.
AU Nardini M; Ricci G; Vesci L; Pecci L; Cavallini D
AN 89051041 MEDLINE

L13 ANSWER 27 OF 32 BIOSIS COPYRIGHT (c) 2005 The Thomson Corporation on STN DUPLICATE 18
TI PROPERTIES OF THE PHENYLTHIOHYDANTOIN DERIVATIVES OF SOME SULFUR-CONTAINING CYCLIC AMINO ACIDS.
SO Physiological Chemistry and Physics and Medical NMR, (1988) Vol. 20, No. 3, pp. 199-204.
CODEN: PCPNER. ISSN: 0748-6642.
AU PECCI L [Reprint author]; COSTA M; PINNEN F; ANTONUCCI A; CAVALLINI D
AN 1989:199153 BIOSIS

L13 ANSWER 28 OF 32 MEDLINE on STN DUPLICATE 19
TI The conversion of L-cystathionine into the cyclic ketimine form by heated rat liver extracts containing cystathionase and transaminase activities.
SO Biochemistry international, (1985 Apr) 10 (4) 641-6.
Journal code: 8100311. ISSN: 0158-5231.
AU Cavallini D; Costa M; Pensa B; Coccia R
AN 85279559 MEDLINE

L13 ANSWER 29 OF 32 HCAPLUS COPYRIGHT 2005 ACS on STN
TI Ketimine formation by interacting L-cystathionine with glyoxylic acid
SO IRCS Medical Science (1984), 12(6), 468-9
CODEN: IMSCE2; ISSN: 0268-8220
AU Costa, Mara; Pensa, Bernardo; Cavallini, Doriano
AN 1984:565730 HCAPLUS
DN 101:165730

L13 ANSWER 30 OF 32 BIOSIS COPYRIGHT (c) 2005 The Thomson Corporation on STN
TI GAS CHROMATOGRAPHIC DETERMINATION OF THIAZINE AND THIAZEPINE DERIVATIVES OF BIOLOGICAL INTEREST.
SO Journal of Chromatography, (1984) Vol. 294, pp. 413-418.
AU MATARESE R M [Reprint author]; PECCI L; RICCI G; CAVALLINI D
AN 1984:160430 BIOSIS

L13 ANSWER 31 OF 32 MEDLINE on STN DUPLICATE 20
TI Similarity of the oxidation products of L-cystathionine by L-amino acid oxidase to those excreted by cystathioninuric patients.
SO Journal of biological chemistry, (1983 Sep 10) 258 (17) 10511-7.
Journal code: 2985121R. ISSN: 0021-9258.
AU Ricci G; Santoro L; Achilli M; Matarese R M; Nardini M; Cavallini D
AN 83290977 MEDLINE

L13 ANSWER 32 OF 32 MEDLINE on STN DUPLICATE 21
TI The ketamine derivatives of thialysine, lanthionine, cystathionine, cystine: preparation and properties.
SO Progress in clinical and biological research, (1983) 125 355-63.
Journal code: 7605701. ISSN: 0361-7742.
AU Cavallini D; Ricci G; Federici G
AN 83273959 MEDLINE

=> d ab 1,5,11,14,17,20,25,30,32

L13 ANSWER 1 OF 32 MEDLINE on STN DUPLICATE 1
AB BACKGROUND: Various cystathionine metabolites are in the urine of the patients with cystathioninuria. Among these metabolites, **cystathionine ketimine** significantly enhanced N-formyl-methionyl-leucyl-phenylalanine (fMLP)-induced superoxide generation in parallel with tyrosyl phosphorylation of 45 kDa protein in human neutrophils. METHODS: We investigated the effect of various sulfur amino acids on fMLP-, phorbol-12-myristate-13-acetate (PMA)- and arachidonic acid (AA)-induced superoxide generation in human neutrophils. In addition, the effects of these sulfur amino acids on the membrane

translocation of cytosolic compounds p47(phox) and p67(phox) and on the scavenging of superoxide anions were investigated. RESULTS: When the cells were preincubated with various sulfur amino acids, fMLP-induced superoxide generation was enhanced by D,L-homocysteine and D,L-homocysteine-thiolactone but was inhibited by other sulfur amino acids in a concentration-dependent manner. The AA-induced superoxide was enhanced by L-cysteine, N-acetyl-L-cysteine and D,L-homocysteine. The strength of enhancing effect was: L-cysteine>>N-acetyl-L-cysteine>D,L-homocysteine. On the other hand, the superoxide generation was weakly inhibited by L-cystathionine. The superoxide generation induced by PMA was weakly inhibited by L-cysteine, N-acetyl-L-cysteine and L-cystathionine. Homocysteine and D,L-homocysteine-thiolactone had no effect. In addition, D,L-homocysteine also enhanced translocation to the cell membrane of cytosolic compounds p47(phox) and p67(phox). Conversely, L-cystathionine and N-acetyl-L-cysteine inhibited the translocation to membrane of p47(phox) and p67(phox) in a concentration-dependent manner. N-acetyl-L-cysteine and L-cysteine revealed scavenging activity against 2,2-diphenyl-1-picrylhydrazyl (DPPH) radicals. The sulfur amino acids tested also indicated radical scavenging activity on superoxide anion generated by phenazine methoxysulfate (PMS)-NADH system. CONCLUSION: D,L-homocysteine and D,L-homocysteine-thiolactone enhanced fMLP-induced superoxide generation by the increment of translocation to membrane of p47(phox) and p67(phox). L-cystathionine and N-acetyl-L-cysteine suppressed fMLP- and PMA-induced superoxide generation by the inhibition of translocation to membrane of p47(phox) and p67(phox). N-acetyl-L-cysteine also had scavenging activity against DPPH radicals and superoxide anion.

L13 ANSWER 5 OF 32 SCISEARCH COPYRIGHT (c) 2005 The Thomson Corporation on STN

AB Methods: The effects of three sapogenins (sarsasapogenin, tigogenin and hecogenin) on the stimulus-induced superoxide generation and protein tyrosyl phosphorylation in human neutrophils were investigated. Results: When the cells were preincubated with sapogrenin, three sapogenins dose-dependently suppressed the superoxide generations induced by N-formyl-methionyl-leucyl-phenylalanine (fMLP) and phorbol 12-myristate 13-acetate (PMA), respectively. In both cases, their effects were in the order: sarsasapogenin > tigogenin > hecogenin. While sarsasapogenin suppressed the superoxide generation induced by arachidonic acid (AA) as well, the superoxide generation was scarcely suppressed by tigogenin and significantly enhanced by hecogenin. In parallel to their effects on the superoxide generation, the three sapogenins dose-dependently suppressed the fMLP-induced and PMA-induced tyrosyl phosphorylations of 45 kDa protein in neutrophils, respectively. Conclusions: Of the sapogenins tested, sarsasapogenin may have the most clinical use as it suppresses superoxide generation. (C) 2001 Elsevier Science B.V. All rights reserved.

L13 ANSWER 11 OF 32 SCISEARCH COPYRIGHT (c) 2005 The Thomson Corporation on STN

AB Human peripheral blood polymorphonuclear leukocytes were preincubated with lanthionine, S-(2-aminoethyl)-L-cysteine, and some of their derivatives found in normal human urine and bovine brain, Among these compounds, lanthionine ketimine and to a lesser extent S-(2-aminoethyl)-L-cysteine ketimine enhanced the N-formyl-methionyl-leucyl-phenylalanine-induced superoxide generation. These ketimines induced tyrosyl phosphorylation of 45 kDa protein of cells. The tyrosyl phosphorylation was markedly increased with time, and the phosphorylation process was dependent on the concentration of both ketimines. However, lanthionine, 1,4-thiomorpholine-3,5-dicarboxylic acid, S-(2-aminoethyl)-L-cysteine and 1,4-thiomorpholine-3-carboxylic acid were without effect both on superoxide generation and on tyrosyl phosphorylation of 45 kDa protein, Lanthionine ketimine and S-(2-aminoethyl)-L-cysteine ketimine also enhanced superoxide generation

induced by opsonized zymosan but not the one induced by arachidonic acid and phorbol 12-myristate 13-acetate. Ketimine-primed superoxide generation and tyrosyl phoshorylation of 45 kDa protein were inhibited by genistein, an inhibitor of protein tyrosine kinase, but not by 1-(5-isoquinoline sulfonyl)-2-methylpiperazine, an inhibitor of protein kinase C.

L13 ANSWER 14 OF 32 SCISEARCH COPYRIGHT (c) 2005 The Thomson Corporation on STN

AB Lanthionine ketimine (LK) binding sites were solubilized from bovine brain membranes using 3-[(3-cholamidopropyl)dimethylammonio]-1 (CHAPS) and Triton X-100. 10 mM CHAPS in 0.5 M potassium phosphate, pH 7.0, containing 20% glycerol was selected to solubilize LK binding entities. Some properties of CHAPS-solubilized LK binding sites have been studied. The CHAPS-solubilized preparation appeared to contain a homogenous population of binding sites for [(35)]LK. Binding properties indicated that the solubilized binding sites were similar to the membrane-bound sites. [S-35]LK specific binding was inhibited by other structurally related ketimines obtaining a similar rank order of inhibition for the soluble and the membrane-bound preparations. The successful solubilization of [S-35]LK binding sites is a useful starting point for the purification of this binding protein.

L13 ANSWER 17 OF 32 MEDLINE on STN DUPLICATE 10

AB Novel cystathionine mono-oxo acids, S-(3-oxo-3-carboxy-n-propyl) cysteine and S-(2-oxo-2-carboxyethyl) homocysteine, and cyclic amino acid, **cystathionine ketimine**, have been detected in the urine of a patient with cystathioninuria using liquid chromatography-mass spectrometry with an atmospheric pressure ionization interface system and an amino acid analyzer. To determine these cystathionine mono-oxo acids and **cystathionine ketimine** we took advantage of the selective absorbance at 380 nm of the phenylisothiocyanate-ketimine interaction product. The total concentrations of these compounds found in the urine samples of a cystathioninuric patient and six healthy subjects were respectively 3611.3 and 148.4 micrograms +/- 35.9/g of creatinine. The cystathioninuric patient excreted 20 times more cystathionine mono-oxo acids in the urine than healthy subjects.

L13 ANSWER 20 OF 32 MEDLINE on STN DUPLICATE 12

AB Aminoethylcysteine, lanthionine, cystathionine and cystine are mono-deaminated either by L-amino-acid oxidase or by a transaminase exhibiting the properties described for glutamine transaminase. The deaminated products cyclize producing the respective ketimines. Authentic samples of each ketimine were prepared by reacting the appropriate aminothiol compound with bromopyruvate, except cystine ketimine which required the interaction of thiopyruvate with cystine sulfoxide. Reduction of the first three mentioned ketimines with NaBH4 yields the respective derivatives with the saturated rings of thiomorpholine and hexahydrothiazepine. The same reduction is carried out enzymically by a reductase extracted from mammalian tissues. Properties of the members of this family of compounds are described. Gas chromatography followed by mass spectrometry permits the identification of most of these products. HPLC is very useful for the determination of the ketimines by taking advantage of specific absorbance at 380 nm obtained by prior derivatization with phenylisothiocyanate. Adaptation of these and other analytical procedures to biological samples disclosed the presence of most of these compounds in bovine brain and in human urine. By using [35S]lanthionine ketimine as a representative member of the ketimine group, the specific, high-affinity, saturable and reversible binding to bovine brain membranes has been demonstrated. The binding is removed by aminoethylcysteine ketimine and by **cystathionine ketimine** indicating the occurrence in bovine brain of a common binding site for ketimines. The reduced ketimines are totally ineffective in competing with [35S]lanthionine ketimine. Alltogether these findings

are highly indicative for the existence in mammals of a novel class of endogenous sulfur-containing cyclic products provided with a possible neurochemical function to be investigated further.

L13 ANSWER 25 OF 32 HCAPLUS COPYRIGHT 2005 ACS on STN
AB A NAD(P)H-dependent reductase (ketimine reductase) able to reduce a new class of cyclic unsatd. compds. named ketimines was detected and purified 2500-fold from pig kidney. Some mol. and kinetic properties of this enzyme were determined The enzymic reduction proceeds with a classical ping-pong mechanism, and some results suggest that the true substrate has the ketiminic structure and is in equilibrium with the enaminic and keto-open forms. As previously described, ketimines arise from the deamination of a number of S-containing amino acids, i.e. L-cystathionine, L-lanthionine, and S-aminoethyl-L-cysteine, catalyzed by a widespread mammalian transaminase. The enzymic reduction products of ketimines were identified as cyclothionine, 1,4-thiomorpholine 3,5-dicarboxylic acid, and 1,4-thiomorpholine 3-carboxylic acid. Some of these compds. were detected in mammals thus suggesting a possible role of this enzyme in their biosynthesis.

L13 ANSWER 30 OF 32 BIOSIS COPYRIGHT (c) 2005 The Thomson Corporation on STN

L13 ANSWER 32 OF 32 MEDLINE on STN DUPLICATE 21

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             0 105990-93-0
L14          8 CYCLOTHIONINE OR 105990-93-0

FILE 'SCISEARCH'
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FILE 'NTIS'
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L25         59 CYCLOTHIONINE OR 105990-93-0

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L26          16 DUP REM L25 (43 DUPLICATES REMOVED)

=> d tot

L26  ANSWER 1 OF 16  HCAPLUS  COPYRIGHT 2005 ACS on STN
TI   Antagonists of D-amino acid oxidase and D-aspartate oxidase for treatment
     of central nervous sytem disorders
SO   U.S. Pat. Appl. Publ., 138 pp., Cont.-in-part of U.S. Ser. No. 51,681.
     CODEN: USXXCO
IN   Cohen, Daniel; Chumakov, Llya
AN   2003:696521  HCAPLUS
DN   139:224389
     PATENT NO.          KIND   DATE        APPLICATION NO.         DATE
     --------------      ----   --------    --------------------    --------
PI   US 2003166554        A1    20030904    US 2002-211160          20020801
     US 2003185754        A1    20031002    US 2002-51681           20020116

L26  ANSWER 2 OF 16  HCAPLUS  COPYRIGHT 2005 ACS on STN
TI   Treatment of CNS disorders using D-amino acid oxidase and D-aspartate
     oxidase antagonists
SO   PCT Int. Appl., 194 pp.
     CODEN: PIXXD2
IN   Cohen, Daniel; Chumakov, Ilya
AN   2002:658287  HCAPLUS
DN   137:195529
     PATENT NO.          KIND   DATE        APPLICATION NO.         DATE
     --------------      ----   --------    --------------------    --------
PI   WO 2002066672        A2    20020829    WO 2002-IB1262          20020115
     WO 2002066672        A3    20040226
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             CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH,
             GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR,
             LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH,
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PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

CA 2433866	AA	20020829	CA 2002-2433866	20020115
EP 1412515	A2	20040428	EP 2002-717019	20020115
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				
JP 2004537275	T2	20041216	JP 2002-566376	20020115

L26 ANSWER 3 OF 16 HCAPLUS COPYRIGHT 2005 ACS on STN
TI Cystathionine metabolism in patients with cystathioninuria and effect of priming of cystathionine metabolites on superoxide generation in human neutrophils
SO Recent Research Developments in Biophysics & Biochemistry (2001), 1, 189-199
CODEN: RRDBDN
AU Kodama, Hiroyuki; Zhang, Jianying; Sugahara, Kazunori; Sagara, Yasuhiro; Masuoka, Yoshinori
AN 2002:623127 HCAPLUS
DN 138:13150

L26 ANSWER 4 OF 16 MEDLINE on STN DUPLICATE 1
TI Novel priming compounds of cystathionine metabolites on superoxide generation in human neutrophils.
SO Biochemical and biophysical research communications, (2000 Mar 16) 269 (2) 297-301.
Journal code: 0372516. ISSN: 0006-291X.
AU Kodama H; Zhang J; Sugahara K
AN 2000175195 MEDLINE

L26 ANSWER 5 OF 16 MEDLINE on STN DUPLICATE 2
TI Effect of cystathionine and cystathionine metabolites on the phosphorylation of tyrosine residues in human neutrophils.
SO Biochemical and biophysical research communications, (1996 Jul 25) 224 (3) 849-54.
Journal code: 0372516. ISSN: 0006-291X.
AU Zhang J; Sagara Y; Fontana M; Dupre S; Cavallini D; Kodama H
AN 96311377 MEDLINE

L26 ANSWER 6 OF 16 MEDLINE on STN DUPLICATE 3
TI Effect of cystathionine ketimine on the stimulus coupled responses of neutrophils and their modulation by various protein kinase inhibitors.
SO Biochemical and biophysical research communications, (1996 Jan 5) 218 (1) 371-6.
Journal code: 0372516. ISSN: 0006-291X.
AU Zhang J; Sugahara K; Sagara Y; Fontana M; Dupre S; Kodama H
AN 96136330 MEDLINE

L26 ANSWER 7 OF 16 EMBASE COPYRIGHT 2005 ELSEVIER INC. ALL RIGHTS RESERVED. on STN
TI Possible relationships between taurine derivatives and products of the metabolism of ketimines.
SO Advances in Experimental Medicine and Biology, (1994) Vol. 359, pp. 1-7.
ISSN: 0065-2598 CODEN: AEMBAP
AU Dupre S.; Pinnen F.; Fontana M.; Coccia R.; Pecci L.; Cavallini D.
AN 94371052 EMBASE

L26 ANSWER 8 OF 16 HCAPLUS COPYRIGHT 2005 ACS on STN
TI Characterization of [35S]lanthionine ketimine specific binding to bovine brain membranes
SO Biochemical and Biophysical Research Communications (1993), 195(2), 673-8

CODEN: BBRCA9; ISSN: 0006-291X
AU Dupre, S.; Fontana, M.; Costa, M.; Pecci, L.; Ricci, G.; Cavallini, D.
AN 1993:664740 HCAPLUS
DN 119:264740

L26 ANSWER 9 OF 16 MEDLINE on STN DUPLICATE 4
TI Purification and characterization of a ketimine-reducing enzyme.
SO European journal of biochemistry / FEBS, (1988 May 2) 173 (3) 689-94.
Journal code: 0107600. ISSN: 0014-2956.
AU Nardini M; Ricci G; Caccuri A M; Solinas S P; Vesci L; Cavallini D
AN 88225088 MEDLINE

L26 ANSWER 10 OF 16 MEDLINE on STN DUPLICATE 5
TI Bovine brain ketimine reductase.
SO Biochimica et biophysica acta, (1988 Nov 23) 957 (2) 286-92.
Journal code: 0217513. ISSN: 0006-3002.
AU Nardini M; Ricci G; Vesci L; Pecci L; Cavallini D
AN 89051041 MEDLINE

L26 ANSWER 11 OF 16 BIOSIS COPYRIGHT (c) 2005 The Thomson Corporation on STN DUPLICATE 6
TI PROPERTIES OF THE PHENYLTHIOHYDANTOIN DERIVATIVES OF SOME SULFUR-CONTAINING CYCLIC AMINO ACIDS.
SO Physiological Chemistry and Physics and Medical NMR, (1988) Vol. 20, No. 3, pp. 199-204.
CODEN: PCPNER. ISSN: 0748-6642.
AU PECCI L [Reprint author]; COSTA M; PINNEN F; ANTONUCCI A; CAVALLINI D
AN 1989:199153 BIOSIS

L26 ANSWER 12 OF 16 MEDLINE on STN DUPLICATE 7
TI Hexahydro-1,4-thiazepine-3,5-dicarboxylic acid and thiomorpholine-3,5-dicarboxylic acid are present in normal human urine.
SO Proceedings of the National Academy of Sciences of the United States of America, (1987 Aug) 84 (15) 5111-4.
Journal code: 7505876. ISSN: 0027-8424.
AU Matarese R M; Pecci L; Ricci G; Nardini M; Antonucci A; Cavallini D
AN 87260938 MEDLINE

L26 ANSWER 13 OF 16 LIFESCI COPYRIGHT 2005 CSA on STN DUPLICATE 8
TI Transamination of L-cystathionine and related compounds by bovine brain glutamine transaminase.
SO NEUROCHEM. INT., (1987) vol. 10, no. 3, pp. 377-382.
AU Costa, M.; Pensa, B.; Di Costanzo, B.; Coccia, R.; Cavallini, D.
AN 87:15704 LIFESCI

L26 ANSWER 14 OF 16 MEDLINE on STN DUPLICATE 9
TI The oxidation of **cyclothionine** by D-aspartate oxidase.
SO Physiological chemistry and physics and medical NMR, (1986) 18 (1) 71-4.
Journal code: 8502230. ISSN: 0748-6642.
AU Solinas S P; Santoro L; Antonucci A; Cavallini D
AN 87041712 MEDLINE

L26 ANSWER 15 OF 16 MEDLINE on STN DUPLICATE 10
TI Gas-chromatographic mass-spectrometric detection of 1,4-hexahydrothiazepine-3,5-dicarboxylic acid (**cyclothionine**) in bovine brain.
SO Journal of biological chemistry, (1985 Dec 15) 260 (29) 15577-9.
Journal code: 2985121R. ISSN: 0021-9258.
AU Cavallini D; Pecci L; Matarese R M; Ricci G; Achilli M
AN 86059433 MEDLINE

L26 ANSWER 16 OF 16 SCISEARCH COPYRIGHT (c) 2005 The Thomson Corporation on STN
TI GAS-CHROMATOGRAPHIC MASS-SPECTROMETRIC DETECTION OF 1,4-

HEXAHYDROTHIAZEPINE-3,5-DICARBOXYLIC ACID (**CYCLOTHIONINE**) IN BOVINE BRAIN

SO JOURNAL OF BIOLOGICAL CHEMISTRY, (1985) Vol. 260, No. 29, pp. 5577-5579. ISSN: 0021-9258.

AU CAVALLINI D (Reprint); PECCI L; MATARESE R M; RICCI G; ACHILLI M

AN 1985:685624 SCISEARCH

=> d ab 3,5-7,9,10,13

L26 ANSWER 3 OF 16 HCAPLUS COPYRIGHT 2005 ACS on STN

AB We have identified cystathionine metabolites, S-(3-hydroxy-3-carboxy-n-propyl)cysteine (HCPC), S-(2-carboxyethyl)cysteine(β-CEC), S-(carboxymethyl) homocysteine (CMHC), S-(2- hydroxy-2-carboxyethyl)homocysteine (HCEHC), N-monoacetylcystathionine, cystathionine sulfoxide, cystathionine ketimine (CK) and perhydro-1,4-thiazepine-3,5-dicarboxylic acid (PHTZDC) in the urine of cystathioninuric patient and the urine and several tissues of D,L-propargylglycine-treated rats. To clarify the physiol. function of cystathionine and cystathionine metabolites found in the urine of patients with cystathioninuria. Human peripheral blood polymorphonuclear leukocytes were preincubated with cystathionine and cystathionine metabolites. Among the cystathionine metabolites, cystathionine ketimine and cystathionine sulfoxide significantly enhanced the N-formylmethionylleucyl-phenylalanine (fMLP)- induced superoxide generation, but cystathionine, NAc-cystathionine and **cyclothionine** did not enhance the superoxide generation. The effects of D-cystathionine ketimine (D-CK) and L-cystathionine ketimine (L-CK) on the stimulus-induced superoxide generation were compared. D-CK enhanced the superoxide generation induced by arachidonic acid (AA), phorbol 12-myristate 13-acetate (PMA) and fMLP showing a dependence on D-CK concentration

L-CK largely enhanced the fMLP-induced superoxide generation, whereas it showed no effect on these induced by AA and PMA. L-Cystathionine sulfoxides were separated into 2 diastereoisomers, CS-I and CS-II. CS-I enhanced the superoxide generation induced by AA and PMA, but not that induced by fMLP and opsonized zymosan (OZ). In contrast, CS-II enhanced the superoxide generation induced by fMLP and OZ, but not that induced by AA and PMA.

L26 ANSWER 5 OF 16 MEDLINE on STN DUPLICATE 2

AB The effect of cystathionine and cystathionine metabolites found in the urine of patients with cystathioninuria on the phosphorylation of tyrosine residues was studied with human peripheral blood polymorphonuclear leukocytes. Among the cystathionine metabolites, cystathionine ketimine markedly increased phosphorylation of a 45 kDa protein with time and the phosphorylation depended on the concentration of cystathionine ketimine, while cystathionine and the reduced form of cystathionine ketimine (**cyclothionine**) did not increase the phosphorylation of the 45 kDa protein. The phosphorylation of the 45 kDa protein induced by cystathionine ketimine was inhibited by genistein and herbimycin A, inhibitors of tyrosine kinase, but was not inhibited by 1-(5-isoquinolinesulfonyl)-2-methylpiperazine and staurosporine, inhibitors of protein kinase C.

L26 ANSWER 6 OF 16 MEDLINE on STN DUPLICATE 3

AB Human peripheral blood polymorphonuclear leukocytes were perincubated with cystathionine and cystathionine metabolites found in the urine of the patients with cystathioninuria. Among the cystathionine metabolites, cystathionine ketimine significantly enhanced the N-formyl-methionyl-leucyl-phenylalanine-induced superoxide generation, but cystathionine and **cyclothionine** did not enhance the superoxide generation. Cystathionine ketimine also enhanced superoxide generation induced by opsonized zymosan but not those induced by arachidonic acid and phorbol

myristate acetate. Superoxide generation induced by cystathionine ketimine was inhibited by genistein, an inhibitor of tyrosine kinase, and was enhanced by 1-(5-isoquinoline-sulfonyl)-2-methyl-piperazine, an inhibitor of protein kinase C.

L26 ANSWER 7 OF 16 EMBASE COPYRIGHT 2005 ELSEVIER INC. ALL RIGHTS RESERVED. on STN

L26 ANSWER 9 OF 16 MEDLINE on STN DUPLICATE 4
AB An NAD(P)H-dependent reductase able to reduce a new class of cyclic unsaturated compounds named ketimines has been detected and purified 2500-fold from pig kidney. Some molecular and kinetic properties of this enzyme have been determined. The enzymatic reduction proceeds with a classical ping-pong mechanism and some results suggest that the true substrate has the ketiminic structure and is in equilibrium with the enaminic and keto-open forms. As previously described, ketimines arise from the deamination of a number of sulfur-containing amino acids, i.e. L-cystathionine, L-lanthionine and S-aminoethyl-L-cysteine, catalyzed by a widespread mammalian transaminase. The enzymatic reduction products of ketimines have been identified as **cyclothionine**, 1,4-thiomorpholine 3,5-dicarboxylic acid and 1,4-thiomorpholine 3-carboxylic acid. Some of these compounds have been detected in mammals, thus suggesting a possible role of this enzyme in their biosynthesis.

L26 ANSWER 10 OF 16 MEDLINE on STN DUPLICATE 5
AB We report the purification from bovine brain of an NAD(P)H-dependent reductase which actively reduces a new class of cyclic unsaturated compounds, named ketimines. Ketimines arise from the transamination of some sulphur-containing amino acids, such as L-cystathionine, S-aminoethyl-L-cysteine and L-lanthionine. The enzyme also reduces delta 1-piperidine 2-carboxylate, the carbon analog of aminoethylcysteine ketimine. Some kinetic and molecular properties of this enzyme have been determined. Subcellular localization and regional brain distribution have also been studied. The ketimine reductase activity was found to be associated with the soluble fraction, and was located prevalently in the cerebellum and cerebral cortices. **Cyclothionine** and 1,4-thiomorpholine-3,5-dicarboxylic acid, the enzymatic reduction products of cystathionine ketimine and lanthionine ketimine, respectively, have been detected in bovine brain, thus suggesting a role of this enzyme in their biosynthesis.

L26 ANSWER 13 OF 16 LIFESCI COPYRIGHT 2005 CSA on STN DUPLICATE 8
AB Glutamine transaminase has been purified 113 fold from bovine brain. The product is free of aspartate amino transferase and other common transaminases. The enzyme shows a wide specificity similar to that reported from the same transaminase purified from bovine kidney and liver as regards both the amino donor and the amino acceptor. Of interest is the transamination and cyclization of L-cystathionine, L-lanthionine, L-cystine and S-aminoethylcysteine. The latter result indicates that the deamination and the cyclization of the sulfur containing diamino acids described for bovine liver and kidney enzyme is feasible also in the brain and suggests the possible endogenous origin of **cyclothionine** and thiomorpholine dicarboxylate recently detected in bovine brain.

=> log y

COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	101.44	101.65

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)	SINCE FILE ENTRY	TOTAL SESSION
CA SUBSCRIBER PRICE	-1.46	-1.46

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